

BULLETIN 679

*Getting Started in*  
**POULTRY FARMING**

*L. B. Darrah*

*J. H. Bruckner*

*Wendell Earle*

*Don Long*

*Cornell Extension Bulletin*

## Contents

	PAGE
Personal requirements of a poultryman.....	3
Preparing to become a poultryman.....	4
Experience.....	4
Education.....	5
Getting started in the poultry business.....	6
Cost of a poultry farm.....	6
Selecting the area.....	6
Selecting the poultry farm.....	8
Becoming an owner.....	9
How much money do you need?.....	9
How to get money.....	10
Financing the farm.....	11
Records to keep.....	11
The breed.....	12
The place of the poultry enterprise.....	15
On part-time farms.....	15
On general farms.....	15
On specialized farms.....	15
Market eggs.....	16
Hatching eggs.....	17
Breeders.....	17
Pullets.....	18
Turkeys.....	18
Ducks.....	18
Broilers.....	20
Capon.....	21
Long-time poultry outlook.....	21
Profits to be expected.....	21
Why all poultrymen make more money some years than in others.....	22
Level of prices.....	22
Relationship between egg prices and feed prices.....	22
Why some poultrymen make more money than others in any one year.....	22
Number of layers.....	22
Eggs produced per layer.....	24
Layers cared for per man.....	24
Deaths.....	24
Season of production.....	25
Importance of poultry.....	25
Some successful farms.....	26
Part-time farms.....	26
General farms.....	26
Poultry farms.....	28
Other bulletins on poultry farming.....	30
Sources of additional information.....	31

Revised August 1954

# *Getting Started in Poultry Farming*

L. B. DARRAH, J. H. BRUCKNER, WENDELL EARLE, AND DON LONG

MANY of you who have been living in cities plan to go into the poultry business. Those of you who have been brought up on a poultry farm have had good experience and know fairly well how much can be made or lost in poultry farming. Many of you, however, have had little or no experience.

The purpose of this bulletin is to discuss (1) requirements for success in poultry farming, (2) ways to get started in the business, (3) the nature of the poultry business, and (4) why some poultrymen make more money than others.

This bulletin is written for those of you who have had little or no experience and who have a small amount of money and a desire to become a poultryman.

## **Personal Requirements of a Poultryman**

Poultry farming is more than just selling eggs and poultry meat. A specialized poultry farm is a year-around business. Some of the jobs you need to do are to:

1. Select and use the right kind of feed.

2. Get the chicks and hens to eat the right kind and amount of feed.
3. Prevent all the different poultry diseases.
4. Keep the house clean, well-ventilated, and dry.
5. Clean and pack eggs for market.
6. Be on the job 10 hours a day, 7 days a week, 365 days a year.

Thus, if you choose to be a poultryman, you must be a laborer, business man, mechanic, veterinarian, scientist, and naturalist. At least a dozen sciences are involved. It is not enough that the jobs be done; they must be done right and at the right time.

Although modern machinery and automatic equipment have made poultry farming easier work than formerly, there is still plenty of need for you to be of good health and strength. Feed, and often water too, must be carried to the hens and to the young stock. The litter on the floors must be removed and the dropping boards or pits cleaned every so often. This means that you, and your wife as well, should be of good health and strength and like farm life and poultry.

Gone are the days when a farm provided most of the family's necessities and there was but little left over for the farmer to sell to others. Successful poultrymen now find it most profitable to sell practically all that they produce and to buy most of the things the family needs. In other words, the opportunity of improving one's standard of living has changed from "running the spinning wheel faster and longer" to producing and selling more eggs and poultry meat. This does not deny the desirability of raising a garden or of keeping a milk cow or two for home use. A poultry farm is a business—an egg or meat "factory"—and sound business principles must be followed at all times.

The ability to repair and adjust machinery and equipment is important if you wish to avoid costly and untimely delays in doing chores and other work. If you can recognize diseased birds quickly and do something for them, you can usually prevent the infection or trouble from spreading throughout the flock, reducing egg production, and killing many birds. Successful feeding and breeding will depend upon your knowledge of animal nutrition and of the laws of heredity.

Successful poultrymen have a characteristic that is often called "chicken sense," in other words, the ability to keep the hens comfortable and eating lots of feed at all times. To offset anything that might develop, a good poultryman always has "an ace up his sleeve." For example,

when egg production begins to drop, he turns on the lights to stimulate the hens or he begins to feed wet mash or pellets, or to stir the mash in the feed hoppers at intervals to encourage the hens to eat.

### **Preparing to Become a Poultryman**

The poultry business has the reputation of being one of the quickest farm businesses to get into, and one of the quickest to get out of, willingly or unwillingly.

In addition to the cost of getting the land, buildings, equipment, birds, and feed, there is often the important cost of learning the business, or the art of not making any serious mistakes in management. This cost can change a paying business into a financial headache overnight. Thus, it is important in preparing yourself for the poultry business to consider both experience and education. Although both are important, neither guarantees success.

### **Experience**

Experience is most important. You would not think of becoming a banker or a merchant without first having obtained some experience in banking or in working in a store. Likewise, you should not enter the poultry business without having first obtained some actual experience on one or more successful poultry farms. This experience should include all the work on a poultry farm during the year—not merely

that of gathering eggs in the summertime. The managing of a laying flock during the warm summer months is quite different from that during the winter months when zero weather and frozen water pipes are common.

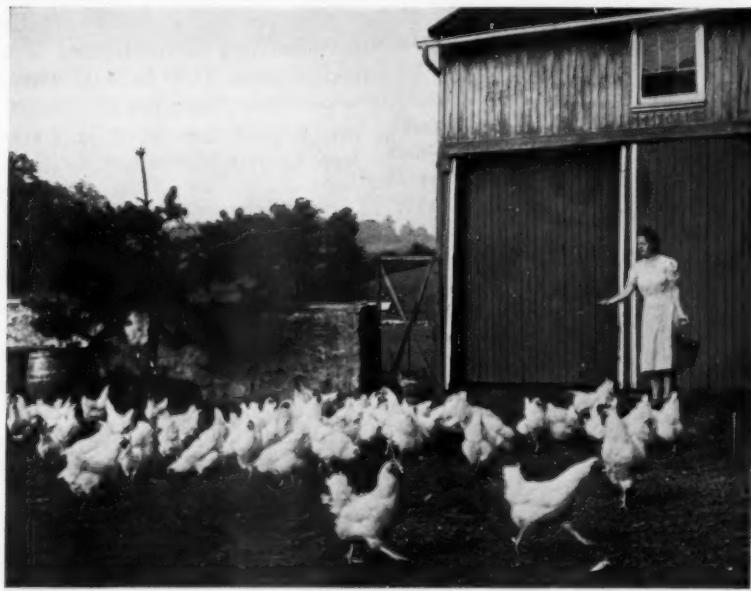
The best way to have obtained experience is to have been born and reared on a poultry farm. If you are not so reared, the best way to obtain this needed experience is to work for a year or more for a successful poultryman—to get the expert guidance of one who knows the poultry business. Not only do you

learn to do things, but often you learn how not to do some things. Also, you have a chance to increase the amount of money you have saved to invest in a farm.

### Education

Experience cannot be substituted for education, nor can education be substituted for experience. The need for an education has increased rapidly during the past few years, and probably will continue to increase as poultry farming becomes more and more of a science.

If you have not had an agricul-



PHOTOGRAPH FROM U.S.D.A.

#### FIGURE 1. HOUSEWIFE FEEDING CHICKENS

*On part-time farms and on general farms that have small flocks, the housewife may take care of the chickens*

tural education, you should consider taking a course at some state agricultural school, or state agricultural college. If you are unable to attend either of these, you might well study at home through the correspondence study courses that are available from many of the state agricultural colleges.

An education costs money and time, but it is yours for "keeps." Farm-business records have always shown that it paid to have an education, and probably it will pay higher dividends in the future than in the past.

### **Getting Started in the Poultry Business**

#### **Cost of a Poultry Farm**

In New York State a typical poultry farm (fully equipped) of about 3500 layers required an investment of approximately \$43,000 in 1952. Of this amount, about \$21,000 was in real estate, that is, the land and buildings, and \$22,000 was in poultry, poultry equipment, and supplies.

A diversified poultry farm with about 1200 layers, a small dairy herd, crop land, and the necessary buildings had a total investment of nearly \$54,000 in 1952. About \$20,000 of this amount was in real estate and the remainder was in poultry, livestock, and equipment. The higher total investment of this farm was due to the capital investment in other enterprises.

In any event, you need a lot of

money to buy a good farm in New York State. Poor farms, which can be obtained for less, are more difficult to pay for because they are far less productive than the good farms. In general, good farms sell for less than they are worth; poor farms sell for more.

It is cheaper to buy a farm with good buildings than to buy one with poor buildings and make a lot of repairs or build new ones. The same general rule applies in buying a farm with electricity, a water system, and other modern improvements because costs were much lower a few years ago than now.

New, practical poultry buildings normally can be constructed at a cost of about \$3.00 to \$6.00 a hen. A good dairy barn can be changed into a good hen house at a cost from \$1.50 to \$3.00 a hen.

#### **Selecting the Area**

The job of finding an area in New York State in which to start a poultry farm is mainly a matter of choosing between one of two general poultry-farming areas. The first is the New York City area, which includes Long Island, the southeastern counties, and the counties bordering the Hudson River. The second area is in central New York. This area is roughly diamond shaped with corners at Rochester on the west, Elmira on the south, Oneonta on the east, and Pulaski on the north. Successful poultry farms of all different types (that is, wholesale egg farms, retail egg farms,



**FIGURE 2. A MODERN THREE-STORY HOUSE**

*New, practical poultry houses can be constructed at a cost of about \$3.00 to \$6.00 a hen*



**FIGURE 3. A DAIRY BARN CONVERTED INTO A FOUR-STORY POULTRY HOUSE**

*The addition of an elevator shaft at the end of the building facilitates the handling of feed*

hatching egg farms, broiler farms, and the like) are found in each of the two major poultry areas as well as in the rest of New York State.

The area to choose depends mostly upon what climate you prefer, the type of market you prefer, and the type of community in which you want to live. There is little difference in the incomes of poultrymen in any of the areas. Poultry farms in the New York City area generally are more expensive to buy and operate than are those in the central area. This tends to offset the advantages of being near a large market so that the returns to the operators are about the same in both areas. Poultrymen in central New York State have more of an opportunity to raise a part of their poultry feed than do those near New York City.

#### Selecting the Poultry Farm

The most important things for you to consider in selecting a farm within any area are: soil, topography, buildings, layout, roads, schools, water system, and electricity.

Specialized poultrymen can to some extent overlook soil and topography because feed can be purchased and only about one acre of well-drained, fertile land is needed for each 500 pullets raised during the summer. Unlike other farm enterprises, income from poultry farming depends less upon soil and weather and more upon those things that are within the control

of the poultryman. As mentioned before, it is cheaper to buy a farm with good buildings, electricity, water system, and other modern improvements than to buy a farm with poor buildings and no modern improvements.

Choose a farm on a road that is usable the entire year. The farm should be near a feed store and on an egg-truck route or near a shipping point because feed must be purchased often, and poultrymen on back roads find it difficult to market eggs and poultry meat regularly during the winter when many roads are blocked by snow. In general, farms on good roads cost more to buy than do those on other roads, but the advantages of being on a hard-surfaced road generally more than offset the additional cost involved.

You should never buy an abandoned farm. Even though the productiveness of the soil can largely be forgotten, you cannot afford to overlook good roads that are kept open throughout the year, the availability of telephone and electric service, neighbors, and nearness to good schools for your children.

It is best to examine several farms before you decide which one to buy. If possible, see the farm during each season of the year. Most farms look good in winter when the ground is covered with snow and in spring when everything is green and flowering, but may look quite different in summer after a drought and at harvest time. Usually, you need

to consider more than the paint to value a farm correctly.

#### Becoming an Owner

The one thing you should have in mind when becoming an owner is the amount of capital necessary to operate an efficient commercial poultry farm. A typical poultry farm with 3500 hens had a capital investment of about \$43,000 in 1952. About one-half of this amount, or \$21,000, was for land and buildings, while the remainder was invested in poultry, equipment, and supplies.

Few poultrymen start poultry farming on a large scale. The general practice is to begin with a few hundred layers, either on a part-

time basis or as a supplementary enterprise, and gradually build up the size of business. Thus, less capital is needed to start a poultry farm than the above figures would indicate.

#### How Much Money Do You Need?

The amount of money you need to buy a farm and to get started in poultry farming depends upon your experience, the size and condition of the farm, the location of the farm, your reputation in the community, the schools, roads, electricity, and other conveniences. Some general rules are:

**If you have had little or no practical experience with poultry, you**



**FIGURE 4. A PART-TIME POULTRY ENTERPRISE OF 150 HENS**

*A small poultry enterprise in addition to a regular job in town is a good way to use extra family help and to add to the weekly pay check*

should plan to get it before you buy a farm.

If you have had a lot of practical experience with poultry, you should have enough money of your own to:

1. Pay at least from one-third to one-half the purchase price of the land and buildings.

2. Buy the necessary equipment, put the laying house in shape for use, buy chicks and raise them until they are from 6 to 8 months of age, and pay living expenses for yourself and family during this period.

Some costs have been determined: To raise pullets to maturity in 1953 cost about \$2.25 each. Equipment for hens and pullets costs about \$1.25 for each bird to be kept. No general statement can be given for the costs of living, of other equipment, or of the amount needed to put the laying house in shape, as they depend too much on individual situations.

You should have more money than is actually needed to buy and run the farm for a few months. The poultry enterprise is risky and you may need a margin of safety should the first year be a bad one. Poor years are common even to experienced poultrymen.

#### How to Get Money

A person with a limited amount of money should never make a large down payment on a poor farm. It is much better to make a small down payment on a good farm. The good farm is more likely to pay off the mortgage.

The big problem, then, in becoming an owner is to get enough capital. The ways to accumulate capital and become an owner are through the: (1) inheritance or gift route; (2) home-farm route; (3) salaried-job route; and (4) hired-man-tenant route.

**The inheritance or gift route** is available only to a few persons. The difficulty with inheritance or a gift is that you seldom know when it will be available.

**The home-farm route** means gradually working into the business and then buying the farm. An important consideration is whether the farm business is good enough and big enough to support all the persons who would get their income from it. If you plan to use the home-farm route, do so on a business-like basis.

Advantages of the home-farm route are that (1) you know the farm, (2) you have friends in the neighborhood, and (3) you can profit by your father's judgment and experience.

**The salaried-job route** is often used by persons who want to save money to buy a farm. The usual policy is to get a job that deals with agriculture and, after a few years, buy a farm. If you do this, you may want to give up the job; but by continuing with the job, you can save more money for the farm and get a good farm business started earlier.

The advantages of this route are that it (1) gives you experience in

another line of work, and (2) enables you to observe more different farm businesses. You may be trained away from as well as into agriculture. A disadvantage commonly associated with this route is that you get the spending rather than the saving habit.

The **hired-man-tenant route** is perhaps the route most often used by young persons interested in becoming farmers. Briefly, it involves working on a farm as a hired man, saving money and gaining experience; then renting a farm, saving money and gaining experience; and then buying a farm. The opportunity to follow this route is good because there is always a need for capable hired men and tenants. By this method you gain the confidence of others in the community which in turn will make it easier for you to obtain financial backing when you are ready to buy a farm.

The chief drawback is the tendency to buy a farm too soon and, by so doing, get too small or too poor a farm. Records show that a person with a limited amount of money can operate a larger farm business and make a larger income for himself as a tenant than as an owner.

You should bear in mind that the advantages of owning your own farm, and of being your own boss, can easily offset the disadvantages of a small farm business.

#### Financing the Farm

Becoming an owner generally means financing the purchase of the

farm. The most common way to do this is to get a first-mortgage loan from the Federal Land Bank, a local bank, or some other conservative lender, and a second-mortgage loan, if necessary, from the person who sold you the farm or from another individual. In this second-mortgage method of financing, the individual must have complete confidence in your ability to succeed.

#### Records to Keep

Successful poultrymen have found that a good set of records is a "must." A poultry farm without records is like an automobile without an instrument panel. You can't tell how far you've gone or how fast you're traveling (profits), whether the gasoline (egg production) is low, whether the battery is being charged (capital accumulated), and many other things that go to make a farm business "click."

Farm records may be used to:

1. Record events and to show when bills were paid and money was received.
2. File an accurate income-tax return.
3. Study the farm business from the point of view of finding the good points and the points that need to be improved.
4. Share profits on partnership farms.

You should keep three different kinds of records. They are a farm inventory, a cash account, and a production record.

**A farm inventory** is a list of all

that a farmer owns and owes at a given time. The value of each item is listed also. The best date to take an inventory is usually January 1.

**A cash account** is a daily listing of all farm expenses and receipts. The method of keeping a cash account depends upon the type of cash-account book you have and what you want it to show.

**A production record** is a daily record that shows how many eggs were produced and how many hens died or were culled. The best way to keep this type of record is to tack a special record sheet to the henhouse door, and to make the entries as you leave the hen house. At the same time you can compare the day's production with that for the previous days to see whether the hens are increasing or decreasing production or are producing about the same.

### The Breed

A question that every poultryman must answer is, "What is the best breed of chickens to raise?" The answer is that there is no one best breed if the selection is made from a good strain of one of the most important breeds.

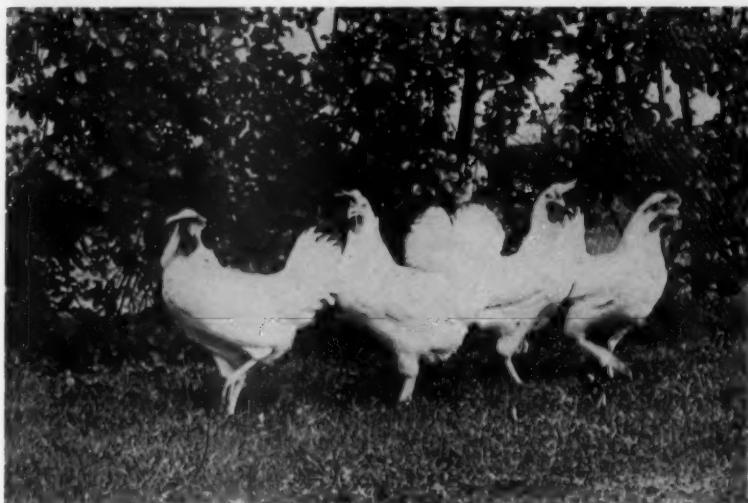
The most important breed of chickens in New York State is the White Leghorn. Hens of this breed make up about two-thirds of the laying flocks in the State. Of the various crosses, the Red-Rock Cross is the most popular. Other common breeds are New Hampshires, Rhode Island Reds, and Barred and White Plymouth Rocks.

The question of which breed to raise is one for the individual poultryman to answer. Chief attention should be given to egg prices, but facilities, equipment, and management need to be considered. The New York markets usually pay premiums for white eggs, but many of the upstate markets do not.

Leghorns, which lay white eggs, are most popular on market-egg farms in New York because white eggs are preferred by the New York markets. The heavy breeds and crosses, which lay brown eggs, are general-purpose fowls that are kept for both egg and meat production. New England markets prefer brown eggs and, as a result, most of the market-egg farms in that area have heavy breeds.

In 1946-47, when the rate of egg production was high (about 200 eggs a layer), heavy breeds produced eggs as economically and gave about as high a return for labor on the laying flock as did the light-breed flocks. With a low or with an average rate of egg production, the light-breed flocks produced eggs more economically and gave a higher return for labor than did the heavy-breed flocks.

In 1950-51 flocks of light breeds produced eggs for about 2 cents a dozen less than did heavy breed flocks of comparable size and rate of lay. Because of the differences in prices between brown and white eggs, however, the returns and profits were greater for the light breeds.

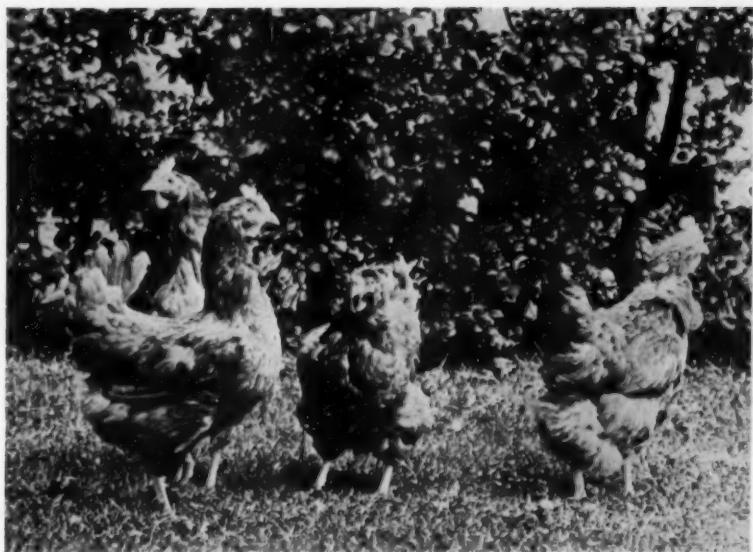


*White Leghorns*



*The Red-Rock Cross Breeds*

**FIGURE 5. THE MOST IMPORTANT BREED AND THE MOST POPULAR CROSS BREED OF CHICKENS RAISED IN NEW YORK STATE**



*New Hampshires*



*Rhode Island Reds*

**FIGURE 6. TWO OTHER POPULAR BREEDS OF CHICKENS  
RAISED IN NEW YORK STATE**

White Plymouth Rocks, New Hampshires, and White crosses of various breeds are most popular for broiler production.

### The Place of the Poultry Enterprise

The trend in poultry farming has been toward large specialized farms. The majority of farms with poultry, however, are still diversified; that is, they have one or more important enterprises in addition to the poultry enterprise. Many persons with regular city jobs have a flock of chickens.

#### On Part-Time Farms

The automobile and good roads have made it possible for many folks who work in town to live in the country. This gives them not only a satisfactory place to live but a chance to raise a portion of the family's food supply and to supplement the weekly pay check from the sale of surplus farm products. In short, part-time farming is one way to use family labor to advantage. Since the children, the wife, and the husband usually work at home in the evenings and over week-ends, a good enterprise for many is a small poultry flock.

Some part-time farms have as many as 500 and more laying hens. Unless you have an unusual amount of family labor, 500 layers are so many that your wife would have to do a lot of the work, and still too few to justify the hiring of a full-time man to care for the birds.

The investment in a small poultry flock is usually low, and a lot of experience can be obtained in the science of raising poultry.

Successful experience in handling a small flock on a part-time farm is not complete assurance that you can handle a much larger flock with the same degree of success. The problems of managing a large flock as compared with a small flock more than increase, they tend to multiply.

#### On General Farms

The type of a poultry enterprise for a general farm depends upon the purpose for which poultry is to be kept. If your only purpose is to provide the family with poultry meat and eggs during the year, then a flock of from 25 to 50 layers probably is large enough. The job of caring for the flock is left to your wife or children. In general, only a minimum amount of care is needed or given to the birds.

If the purpose of the poultry enterprise is to increase the size of the farm business, you want to have enough layers to provide an efficient sized enterprise. In general, this means a flock of 500 or more layers. A flock of this size adds materially to your income, and will help to use labor throughout the day, especially during the winter months when not much time is spent on other enterprises.

#### On Specialized Farms

Poultry is one of the best enter-

prises for a specialized farm. Its advantages are:

1. The men are kept busy each day of the year.
2. The income is distributed throughout the year. On egg-producing farms, a weekly check is common.
3. Poultry is one of the better paying farm enterprises.
4. There are several different phases of poultry farming.

The chief disadvantage is that poultry is a risky business. A bad year for poultry is especially severe on specialized farms because usually there are no other sources of income. It is the age-old problem of having "all your eggs in one basket." You must take good care of the "basket."

Although many poultrymen specialize in the production of eggs for market, others engage in one or more different phases of the poultry business. For example, some poultrymen are interested primarily in producing eggs for market but also produce eggs for hatching. Some, in addition to producing eggs for market, are engaged in the business of hatching chicks. While several of the phases of poultry farming combine well with each other, others, such as turkey growing and chicken production, do not.

Your choice of the phases of the poultry business in which you should engage is pretty much a matter of using the facilities available and of making use of your ability

and personal preference. In general, poultrymen work into the different phases over a period of years rather than start several at the same time. A brief description of the different phases of poultry farming follows:

#### Market eggs

Most poultrymen in New York State produce eggs for sale to wholesale buyers. These poultrymen have found that they received more for their time by producing eggs than by marketing eggs. Some, of course, are not conveniently near cities and thus find it more practical to sell the eggs on a wholesale basis.

Two other ways to market eggs are: (1) to sell to retail stores, hotels, and restaurants, and (2) to sell direct to the consumer. In the first, the producer grades and packs the eggs and delivers them to the buyer. The poultryman usually receives more for his eggs under this system of selling than by selling wholesale. The eggs must, however, be candled, which takes more labor. If you have to have extra labor, there is a question of where it might best be used—in grading or in producing eggs.

Poultrymen who market eggs direct to the consumer generally are near a good market and have small or moderate-sized flocks. This type of marketing, although it returns the highest price per dozen eggs, involves the additional expenses of candling, cartoning, delivering, and collecting. All these extra costs should be taken into consideration

in deciding whether you want to sell eggs at retail. You should remember that the larger your flock of hens, the more difficult it is to operate a retail egg business.

#### Hatching eggs

The growth of large-scale commercial hatcheries represents a growing outlet for eggs. Hatcheries pay a premium for hatching eggs above the market egg prices. These premiums are not all profit, however, because additional costs are incurred in the production of hatching eggs. These are: (1) the cost of keeping males; (2) higher feed costs for special breeding ra-

tions; (3) additional labor costs in handling eggs and caring for the males; (4) with White Leghorns, lower egg production because part of the birds are kept through two seasons; with heavy breeds, usually lower egg production because of the varieties that are developed primarily for meat production. In general, to make a profit in this phase of the business, poultrymen must sell hatching eggs throughout the hatching season and receive a good premium for them.

#### Breeders

Breeding is one of the most interesting phases of the poultry busi-



**FIGURE 7. TAKING OFF A HATCH OF CHICKS**

*The production and sale of chicks is one of the most profitable phases of the poultry business. It is, however, one of the most difficult in which to become established*

ness, but the most difficult. The main objective of the breeder is to improve either the egg-laying or meat-producing ability of the birds or both. Even on the most outstanding breeding farms, the primary source of income is usually the sale of baby chicks. It is definitely not for the beginner. It calls for more specialized ability with poultry, more investment, and more labor than any other type of poultry production. The business is highly competitive, and only the most successful receive a return in line with the efforts involved.

In general, hatcheries operate on one of two systems. Some maintain their own breeding flocks and hatch eggs from these flocks. Others buy eggs from producers of hatching eggs, incubate them, and then sell the chicks. Chick production is often one of the most profitable phases of the poultry business. It is, however, one of the most difficult in which to become established because poultrymen like to buy chicks from well-known hatcheries.

The present tendency seems to be for hatcherymen to start by buying their hatching eggs and, as they expand, to change their system to that of maintaining large breeding flocks of their own.

#### Pullets

A few poultrymen in New York State specialize in the production of pullets for sale, either as partly grown or ready-to-lay birds. Many

other poultrymen raise a few extra pullets to sell after they have filled their own laying houses, and a few produce pullets as a sideline. Because the production of pullets is seasonal, a specialized pullet-grower might well engage also in broiler production. Persons interested in a large-scale business of growing pullets for sale should not keep a laying flock, because contacts between growing chicks and old hens may cause heavy mortality when the pullets mature.

#### Turkeys

Turkey production has been increasing in New York State and a further expansion appears likely. The growing of turkeys, however, requires more skill than that required in growing chicks. The risks involved are greater, and the amount of investment required to produce turkeys is large. If you have had experience and have ability and capital, the turkey business has a future. Cost accounts indicate that the business can be profitable. Beginners had best start on a small scale. The turkey business and the chicken business do not go well together because turkeys are highly susceptible to several minor diseases of chickens.

#### Ducks

New York State, and particularly Suffolk County on Long Island, is the largest producer of ducks in the country. Duck production is a highly specialized business. The returns



**FIGURE 8. A FLOCK OF TURKEYS**

*To grow turkeys requires a considerable amount of skill and a large capital investment*



**FIGURE 9. A DUCK FARM ON LONG ISLAND**

*Duck production is highly specialized. Because the profits per duck are usually small, a large number must be raised if you wish to obtain a reasonable income*

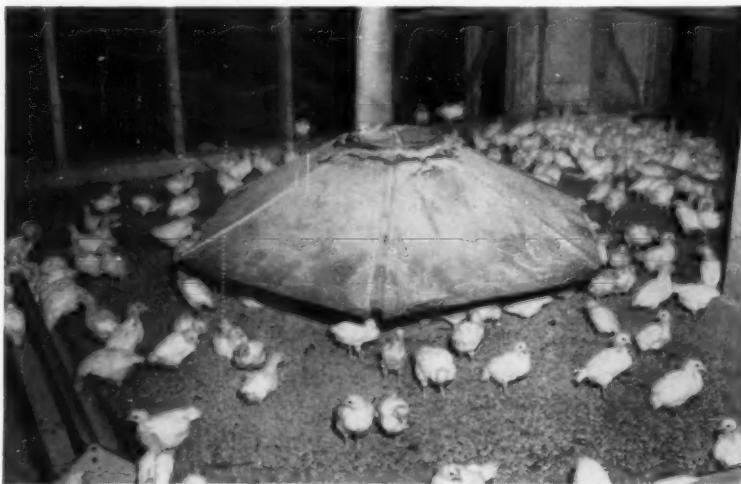
per duck are generally small, and a large number are needed if you are to make a reasonable income. Because the margin of profit is small, it is often difficult for beginners to make a successful start in the business.

### Broilers

Broiler production has increased rapidly during the past ten years. In Georgia and in the Delmarva area (parts of Delaware, Maryland, and Virginia) the business is highly specialized. Broilermen raise a large number of birds and buy all their chicks and most of their feed. In other areas, broiler production is more likely to be a sideline to poul-

try or other farm enterprises. In New York State large broiler farms are in operation on Long Island and in other areas near New York City.

Broilers are usually marketed when they weigh from 3 to  $3\frac{1}{2}$  pounds. This weight is usually attained at the age of from 9 to 12 weeks. On many farms, the birds are kept to even heavier weights; the females are sold as pullets and the males as roasters. Often these heavier birds are treated with hormones to improve their quality. Other poultrymen produce  $1\frac{1}{2}$ - to 2-pound broilers for special markets. In general, the broiler business is highly speculative and the returns



**FIGURE 10. A TYPICAL BROILER GROWING SET-UP, USING A COAL-BURNING STOVE FOR HEAT**

*White-feathered birds such as these are increasing in importance*

can either be high or the losses great.

### Capons

Inexperienced poultrymen often believe that the production of capons offers easy income. Generally, they are wrong. Capons are usually marketed when they are from 6 to 8 months of age. Production costs are high with birds of this weight and age because of low feed efficiency. Frequently, the higher price obtained does not offset the higher production costs. The exception to this, of course, is the poultryman who has a good market and is able to obtain a price that is well above the general market price.

### Long-time Poultry Outlook

Perhaps the best way to determine the future prospects of the poultry industry is to look at the past. Over a period of years poultry has been one of the better paying farm enterprises in New York State. It is likely to continue to be so.

The trend has been for expansion in the poultry industry. Two factors have been important in this trend. One was the continuous growth in population; the other was an increasing per capita consumption of eggs and poultry meat. Population is still increasing at a rapid rate and the rise in per capita consumption also seems to be continuing. This speaks well for the future prosperity of the poultry industry.

One characteristic of poultry farming as compared with fruit or

dairy farming is the speed with which an increase or decrease in numbers can be accomplished. Thus in a period of good profits, there is usually a rapid increase in numbers; while in periods of poor profits, there is a corresponding decline in numbers. This tends to eliminate long periods of very high profits or losses but enables a good poultryman to show a rate of profit that encourages him to remain in the poultry industry.

### Profits to Be Expected

Poultry farming is a type of agriculture that provides good rewards for the men who do a good job but severe penalties for those who do not. With careless methods of production, a dairyman can still produce a fair amount of milk and of feed crops; a careless poultryman is likely to be out of business within a short time.

One widely used measure of profits is *return per hour of labor*. This is what the poultryman has left after he has paid all other expenses and deducted a charge for the use of capital invested in the farm. In addition to this return per hour, the farmer has a house to live in, a garden, eggs, poultry meat, and other farm products.

The information in the following paragraphs is from the more successful poultrymen in the State. Unsuccessful poultrymen are not poultrymen long.

In 1950-51, a fairly good year for poultrymen, the average return per

hour of labor on 104 commercial poultry farms was about \$1.15. In poorer years for poultrymen, the return per hour of labor may be considerably lower.

You should remember that:

1. Return per hour of labor varies considerably from year to year.
2. Return per hour of labor varies considerably from farm to farm in any one year.
3. Good poultrymen usually make an income that is above average each year.
4. Many experienced poultrymen fail to make more than \$1000 annually.
5. Poor poultrymen either improve quickly or else....

### Why All Poultrymen Make More Money Some Years than in Others

The two important reasons why incomes of poultrymen vary so much from year to year are: the general price level and the relationship between egg prices and feed prices. Neither can be controlled by an individual poultryman.

#### Level of Prices

The general level of all prices, the most important factor affecting profits in poultry farming, helps to explain why the average return per hour was only \$0.14 in 1931-33 but was \$1.15 in 1950-51.

The relationship between level of prices and return per hour can be stated in general as: the higher the

prices, the higher the poultryman's return per hour of labor.

#### Relationship between Egg Prices and Feed Prices

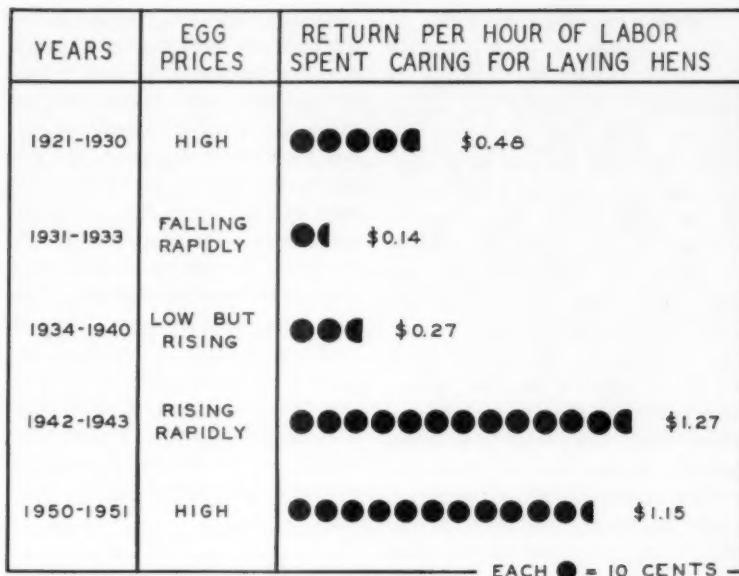
Feed makes up from 60 to 70 per cent of the cost of producing eggs and poultry meat. Therefore, the relationship between the price of eggs and the price of feed is most important. When the price of eggs is high in relation to the price of feed, conditions are favorable for egg production. When the price of eggs is low in relation to the price of feed, conditions are unfavorable. The factors that cause egg prices to be high or low in relation to feed prices are beyond the control of the individual poultryman.

### Why Some Poultrymen Make More Money than Others in Any One Year

Reasons why some poultrymen make more money than others in any one year are several. All of them are more or less under the control of the individual poultryman. The five most important ones are: (1) number of layers, (2) eggs produced per layer, (3) layers cared for per man, (4) deaths, and (5) season of production.

#### Number of Layers

Poultry-farm business records have shown time and time again that as the numbers of layers kept per farm increased, the labor return increased.



**FIGURE 11. RETURNS PER HOUR OF LABOR SPENT IN CARING FOR LAYING HENS**

*The returns from poultry farming vary widely but have been high during the past two or three years. You cannot expect the high returns obtained in recent years to continue*

The 1950-51 survey of commercial poultry farms showed that farms with an average of only 1000 layers had a labor return of \$150, while those with an average of about 3000 layers had a labor return of \$3500.

If you plan to specialize in the poultry business and support a family, you should have at least from 2000 to 3000 hens per man working on the farm.

If you wish to obtain most of your

income from a job in town, and keep some chickens as an additional source of income, you should be careful not to keep so many hens that they will burden the family with farm work.

If you plan to operate a full-time farm on which poultry is an important but not the major source of income, you should have a large flock, because a small flock is inefficient. An efficient-sized enterprise for such a farm would be 500 or more hens.

### Eggs Produced per Layer

The number of eggs produced per layer affects the incomes of poultrymen. A general rule might be: the more eggs produced per layer, the lower the cost of production and the higher the labor return of the poultryman. Old-timers in the egg business know this rule in the form of a saying that goes like this: "The hens that lay are the ones that pay, all the rest are roosters." Studies have shown that poultry farms with the highest production per hen have larger labor returns than those with the lowest production per hen.

The chicks offered for sale by reliable hatcheries are bred to produce a large number of eggs. The never-ending job then is to so manage the chicks, and later the layers, that you can obtain the most eggs from each. Birds that lay more than 300 eggs a year are widely publicized, but there are few such birds. The most successful poultrymen get more than 200 eggs per layer during the year, which is more than one dozen above the average for commercial poultrymen.

### Layers Cared for per Man

Since labor is the second biggest cost item on a poultry farm, it is important that it be used efficiently.

With the cost of labor higher than it has ever been, and the prospects good that it will continue high, there is an even more important reason why labor should be used efficiently. Work routine and

buildings should be planned so that each person working on a specialized poultry farm takes care of from 2000 to 3000 layers for the year and raises the necessary number of pullets for flock replacement. On general farms, the number of layers per man will fall below that on specialized farms because of the other enterprises. An efficient-sized poultry enterprise for a general farm, however, ought to have at least 500 layers.

A good-sized business, well-planned buildings and equipment, and careful planning of work all go to increase the amount of work that can be accomplished per man.

### Deaths

Deaths have always been a problem for poultrymen. The experienced and the inexperienced, the large and the small, the old and the young, all are continuously fighting to ward off diseases and to keep the number of deaths low. Yet, an average of 15 per cent of all chicks die before they reach maturity, and more than 20 per cent of the hens die during the first year. In 1951, the death loss of layers on farms that kept accurate records ranged from a low of 8 out of each 100 layers to a high of 47 out of each 100.

Cost-account records show that farms with a low number of deaths per 100 layers produce eggs at lower cost and have a higher labor income than do farms with a high number of deaths.

Sick hens do not lay eggs. Since medication is often not effective, the hens lose weight and die quickly. When the death rate gets out of control, and it often does, the poultryman is left with last month's feed bill and a lot of dead hens—a sure way to get out of the chicken business.

#### Season of Production

The number of eggs produced in the summer and fall influences the average price received for the eggs and thereby affects labor income; the other factors affect incomes by reducing costs.

Total egg production in the country varies from month to month in a regular pattern. It is highest in March and lowest in September. Between March and September, production declines each month. Between September and March, production increases each month.

Egg prices, on the other hand, move opposite to production. When production is at a peak, prices are lowest; when production is lowest, prices are highest.

Egg prices during the last half of the year are higher than those during the first half. Therefore, you should plan your businesses so as to produce a large quantity of eggs during the summer and fall months. This will increase the average price received for eggs and thus will affect your labor income.

#### Importance of Poultry

The poultry population of New York State averages about 14,000,000 birds and represents a little more than 3 per cent of the country's chickens. In New York State chickens are found on about 73,000 farms. Many of these farms (about 92 per cent) have less than 400 chickens per farm. Of the remaining farms, about 58 per cent have from 400 to 800 chickens, while 42 per cent have more than 800.

Egg production averages about 194 eggs per hen in New York State as compared with about 178 eggs per hen for the country as a whole.

Poultry is the second most important source of cash-farm income in the State. The dairy business is by far the most important, while all vegetables are just slightly less important than poultry. The gross income from eggs is normally 4.5 times as large as that from chickens.

The growing tendency in New York is for poultry to be found on fewer farms but in larger flocks. In 1940, 70 per cent of the farms had chickens; while in 1950, only 58 per cent had chickens. The number of chickens per farm increased from an average of 105 to 192 during this period. During the 10-year period from 1940 to 1950, the number of farms with more than 800 chickens increased from 1720 to 2545; an increase of 48 per cent. This trend is expected to continue.

### Some Successful Farms

You would not think of buying your first car or radio without shopping to find what the cars and radios look like. Neither should you buy a farm unless you know something about farms. Since it is not practical for all of you to "shop around" and find what other successful farms look like, the farm organization, the investment, and the marketing practices of a few successful farms in New York State in 1951 are described briefly in the following paragraphs.

#### Part-Time Farms

##### Farm A

This farm of 55 acres of land is about 12 miles from town. The owner is occupied full-time as an agricultural leader and commutes to his work.

The farm is valued at \$13,000. Of this amount \$10,000 is invested in real estate and the rest in livestock and equipment.

The owner keeps an average of about 100 layers, and raises 75 pullets each year. Other livestock kept includes: 2 cows and 3 sheep. Most of the farm land is rented to neighboring farmers. Six acres of hay and about 1 acre of corn are raised each year as feed for livestock. The owner does about one-half of the work while his sons do the other half.

Eggs are sold at retail to private customers in the city. Poultry is dressed on the farm and sold in the same manner.

##### Farm B

This farm of 9 acres is just on the edge of a small town. The owner is employed full-time as the operator of the local milk plant.

The farm is valued at \$9900. Of this amount, \$8000 is invested in real estate and \$1900 in livestock and equipment.

The poultry enterprise averages about 450 layers for the year. About 500 pullets are raised each summer. No other livestock is kept. Usually about 4 acres of grain and hay are raised and sold each year. The owner does about 15 per cent of the work; his wife and mother, 75 per cent; and extra help, 10 per cent.

Eggs are sold twice each week to a wholesale egg buyer in New York City. The poultry is sold alive at the farm.

#### General Farms

##### Farm C

This farm of about 80 acres of land is in the heart of one of New York State's fertile valleys. The farm is valued at \$38,800, of which \$22,800 is in real estate and \$16,000 is in livestock and equipment.

The number of hens averages about 1100 during the year. Approximately 825 pullets are raised each summer. Other livestock includes 16 milk cows and 10 heifers. The crops grown are: corn silage, 28 acres; and alfalfa hay, 14 acres. Both the silage and hay are fed to the milk cows. No cash crops are grown.

To do the work on this farm re-

quires the full-time of the owner and about 7 months of hired help.

Eggs are sold twice each week to a wholesale egg buyer. Poultry is sold alive at the farm. Milk is sold wholesale to a local milk plant.

#### Farm D

This farm of 155 acres also is in one of New York State's broad, fertile valleys. The investment amounts to slightly more than \$62,500. Of this amount, \$41,000 is in real estate and \$21,500 is in livestock and equipment.

The poultry business consists of keeping an average of 825 laying hens for the year and raising about 650 pullets. Other livestock include: 15 milk cows and 14 heifers. The crops grown for feed are: corn for silage, 11 acres; wheat, 20 acres;

oats and barley, 28 acres; and alfalfa and clover hay, 19 acres. Crops grown for sale are: cabbage, 4 acres; dry beans, 6 acres; potatoes, 13 acres; and tobacco, 11 acres.

To do the work on this farm, requires two men full-time for the year and about 22 months of help during the growing and harvesting seasons.

Eggs are sold twice each week to a wholesale egg buyer in New York City. Poultry is sold alive at the farm. Milk is sold wholesale to a local milk plant. Cash crops are generally sold to local buyers.

#### Farm E

This farm of about 200 acres is in one of the most important fruit areas in this State. Of the \$71,000 investment, about \$38,000 is in real



**FIGURE 12. A PERMANENT BROODER HOUSE**

*Many poultrymen find it advantageous to use a permanent brooder house rather than colony houses because it saves labor in caring for chicks*

estate and the rest is in livestock and equipment.

The laying flock averages about 2900 hens. Approximately 2300 pullets are raised each year. Other important enterprises are: hay, 30 acres; corn for grain, 10 acres; oats, 5 acres; apples, 17 acres; other fruit, 2 acres.

To do the work on this farm, requires two men full-time for the year and about 20 months of extra help during the growing and harvesting seasons.

Eggs are sold mostly to a wholesale egg buyer. A small proportion of the eggs, practically all of the poultry, and a few apples are sold at retail in a nearby city. The rest of the apples are sold wholesale at the farm.

### Poultry Farms

#### Farm F

This farm of 21 acres specializes in the production of eggs. The money invested in the business amounts to about \$34,500, of which \$26,000 is in real estate and \$8500 is in livestock and equipment.

The number of hens averages about 2000. About 3000 pullets are raised each year. One-half of these pullets are raised in the spring and the other half in the fall.

The work is performed by the operator and one other full-time man.

Eggs are sold twice each week to a wholesale egg buyer. Poultry is sold alive at the farm.

#### Farm G

This farm consists of 10 acres of land. The operator specializes in egg production. The capital invested amounts to about \$18,500. Real estate accounts for about \$13,500 of this amount and livestock and equipment for the rest.

The business consists of keeping an average of 1600 laying hens and raising about 1400 pullets.

All the work is done by the operator.

Eggs are sold twice each week to a wholesale egg buyer. Poultry is sold alive at the farm.

#### Farm H

This farm of 18 acres also is devoted to the production of eggs. The money invested amounts to about \$22,500, of which \$18,000 is in real estate and \$4500 is in livestock and equipment.

The number of hens on this farm averages about 1050. The number of pullets raised each year averages 870.

The operator does all the work except for some day help which is used in cleaning the laying houses.

Eggs are sold wholesale to a buyer who picks them up at the farm. Poultry is dressed and sold wholesale in the same manner.

#### Farm I

This farm consists of 14 acres and is a poultry-breeding farm. The capital investment amounts to about \$52,500, of which \$36,000 is in real estate and \$16,500 is in livestock and equipment.

About one-half of the laying flock, which averages about 1700 birds, are breeding hens. An average of 71 males are kept for breeding purposes. About 2200 pullets are raised each summer. One-half of these are kept on the farm for flock replacement, while the other one-half are sold for laying purposes. The number of chicks sold averages about 35,000. One cow is kept for home use.

To do the work on this poultry-breeding farm, requires 3 men full-time for the year and about 9 months of extra help during the rush of the hatching season.

About two-thirds of the eggs are shipped to private customers in

New York City. The rest are sold at the farm. Poultry is sold alive at the farm.

#### Farm J

This farm of 72 acres specializes in the production of market eggs. The farm is valued at \$74,000, of which \$26,000 is in real estate and \$48,000 is in livestock and equipment.

The number of hens averages about 12,000. Replacement pullets are also raised on this farm.

To do the work on this farm requires two men full-time for the year and hired help for about 18 months.

Eggs are sold twice each week to a wholesale egg buyer.



FIGURE 13. A FLOCK OF PULLETS ON RANGE

*A flock of healthy, well-grown pullets is the foundation of a successful laying flock. A well-drained range with adequate shade is desirable, but good feed and water, and plenty of them, are essentials*

### Other Bulletins on Poultry Farming

A more complete discussion of the different phases of poultry farming may be found in the following bulletins. These are free to residents of New York State and may be had upon request from the New York State College of Agriculture at Ithaca, New York.

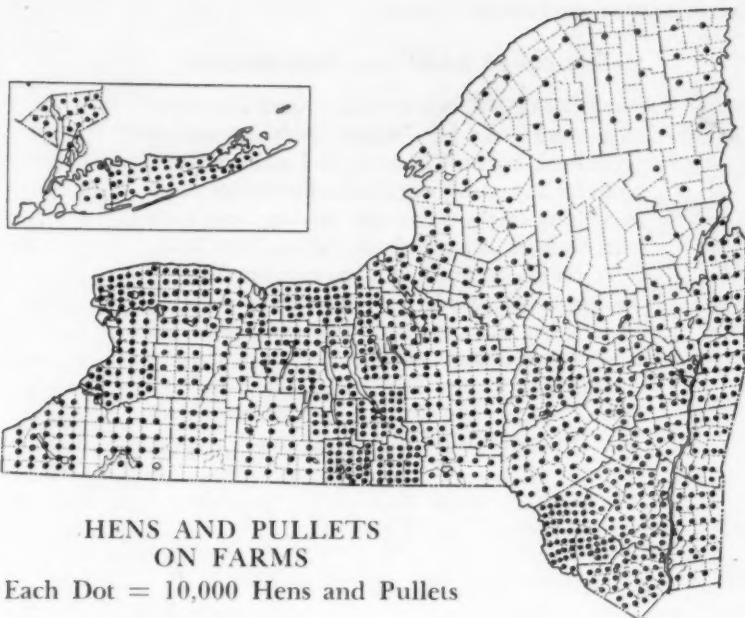
- E 143 Producing Capons for Home and Market. *Botsford*
- E 451 Homes for Laying Hens. *Goodman*
- E 713 Make your Poultry Farm Pay. *Darrah*
- E 752 Equipment to Save Labor on the Poultry Farm. *Hoff and Hurd*
- E 851 Brooding Chickens in Colony Brooder Houses. *Hurd*
- E 863 Clean Eggs Bring More Money. *Earle and Botsford*
- E 865 Permanent Brooder Houses. *Hoff and Hurd*
- E 868 More Efficiency on the Poultry Farm. *Earle*
- E 848 Growing Turkeys for Market. *E. Y. Smith*
- E 887 Culling for Egg Production. *Hall and Marble*
- E 889 Broiler Growing in New York State. *Baker*
- E 898 Egg-Grading and Packing-Room Arrangements. *Earle and Ostrander*
- P 858 Marketing Practices and Egg Quality, 1948-49. *Earle, Darrah, and others*
- P 859 Costs of Raising Pullets on New York Farms, 1947. *Pickler*
- P 863 Marketing of Dressed Chickens by New York Poultrymen, 1946-47. *Searles*
- P 864 Commercial Poultry-Farm Management in New York State, 1946-47. *Kearl*
- P 865 Seasonal Costs and Returns in Producing Eggs, New York, 1946-47. *Kearl*
- P 896 Hatching or Market Eggs? *Carpenter*
- P 897 Estimated Costs of Producing Eggs, New York State, 1926-1952. *Carpenter*

A list of other bulletins that are available from the New York State College of Agriculture may be obtained by requesting a copy of Extension Bulletin 47, *List of Publications*.

### Sources of Additional Information

INFORMATION concerning conditions within a county may be obtained from the county agricultural agent. The name and address of the agent for any county or counties may be obtained by writing to the Extension Service, New York State College of Agriculture, Ithaca, New York.

Technical information on marketing, diseases, and poultry-husbandry practices may be obtained from either the county agricultural agent, the Department of Agricultural Economics, the Department of Poultry Husbandry, the New York State College of Agriculture, or the New York State Veterinary College, Ithaca, New York.



*First printing, August 1945*  
*Second printing (revised), September 1947*  
*Third printing, December 1949*  
*Fourth printing (revised) August 1954*

Published by the New York State College of Agriculture at Cornell  
 University, Ithaca, New York. L. R. Simons, Director of Extension.  
 This bulletin is published and distributed in furtherance of the pur-  
 poses provided for in the Acts of Congress of May 8 and June 30, 1914.